

Army Lodging Wellness Recommendation



Final Submittal - Carlisle Barracks

February 20, 2004

3D/I

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Introduction

Section 1 Wellness Recommendation

The Army Lodging Wellness Program is conducted under the direction and guidance of Headquarters Army, Lodging Division (CFSC). The goal of the Carlisle Barracks Lodging Wellness Plan is to provide a comprehensive assessment and planning tool to support long term capitalization of Army Lodging facilities. The Demand Analysis determines installation Lodging requirements, and reviews off-post Lodging availability and cost, arriving at the most economical solution for meeting total transient requirements and providing a final determination of the appropriate number and configuration of on-post Lodging rooms. Individual Lodging facility condition (building and building systems) and functional assessments are included with both recommendations and costs. Facility improvement and renovation versus replacement/new construction recommendations are developed based on the individual facility assessments and cost. A Lodging Master Plan for the installation is developed including renovation, replacement/new construction, and proposed new facility siting. A final recommendation defines the method for achieving the final wellness solution for the installation and will assist with project planning.

Methodology

Demand

- Demand for Lodging facilities is analyzed and adjusted for atypical past occurrences and for expected changes in the installation's population, housing, or mission. Two primary methods are used to calculate the optimum number of rooms: the number necessary to meet 80% of official demand and the number projected to be the most efficient from an operating cost perspective.
- The off-post private market is assessed for capacity and representative rates. A determination is made if the private market has the capability to handle overflow requirements of official demand.
- Room mix recommendation is based on the segmentation of the Permanent Change of Station (PCS)/Temporary Duty (TDY) mix and the expected lengths of stay. This produces the final determination of the appropriate number and configuration of rooms for the installation.

Assessment

- Existing Lodging facilities are assessed based on building and building system conditions followed by an assessment for conformance to the Army Lodging functional standards. Facilities assessed to be in fair to good condition, and meeting the majority of functional requirements, are considered for renovation. Renovation of Lodging facilities found in poor condition and configured significantly different than current standards will typically exceed 50% of the replacement costs and are recommended for replacement/new construction. This decision is supported by renovation cost comparisons as well as the assessment documentation.
- The age, condition, and existing configuration of one of the existing Lodging buildings support a finding of replacement through new construction in lieu of renovation.
- Force protection construction criteria has a significant impact on new construction. This Wellness recommendation, including building assessment, site analysis, and proposed Lodging construction, incorporates these requirements from the UFC 4-010-01, in our analysis and recommendations. Consistent with this guidance, force protection mitigation is not considered in renovation unless the renovation cost exceeds 50% of the replacement cost for a facility.

Demand Summary

Due to the constant nature of demand from the resident Army War College class, we recommend the number of rooms provided by the “80% of Annual Official Demand” criterion, after adjusting to accommodate 100% of the Army War College resident class. Using this criterion, we expect an average occupancy of 81%, and 80% of the official demand is met.

Room Count and Mix Recommendation

71 rooms

Proposed room mix:

- 49 standard guest rooms;
- 17 extended-stay guest rooms offering a kitchenette;
- 5 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

The demand analysis has determined a need of 71 rooms; however, based on existing and proposed building configurations, the actual number recommended for the Carlisle Barracks Wellness Plan will be 74 rooms.

Lodging Summary

The following Lodging for Carlisle Barracks is summarized by building, including number of existing rooms and number of proposed rooms determined as part of the installation Wellness recommendation. The table also indicates the number of rooms required for a new Lodging facility based on buildings not proposed for re-use due to poor existing conditions and high renovation costs. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration. Proposed additional long term changes during a future phase of the Wellness Plan are also included.

Building Number	Existing Rooms					Wellness Recommendation (FY 08)			
	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf	Other Rooms	Total Rooms	Std Rms 300 sf	Extend. Stay Rms 300 sf	Family Suites 450 sf
Wellness Recommendation based on Demand Analysis									
						71	49	17	5
Existing Lodging Facilities									
7	14	10			4	0			
36	19	15		4		17	14		3
37	12	10		2		11	9		2
Totals	45	35	0	6	4	28	23	0	5
New Proposed Lodging Facility									
						46	29	17	
Total Lodging Rooms									
						74	52	17	5

Summary of Room Count and Mix based on Configuration

- 74 rooms
 - 52 standard guest rooms;
 - 17 extended-stay guest rooms offering a kitchenette;
 - 5 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette.

Cost Summary

Project Cost

The following table summarizes the Condition Analysis, Renovation, and Replacement Cost by individual Lodging facilities. The Wellness Recommendation indicates cost by building based on recommendation, including the proposed facility cost.

Building Number	Existing Units						Wellness Recommendation (FY 08)			
	Total Rooms	Condition Analysis Cost*	Condition Analysis / Upgrade Renovation Cost**	Renovation Cost***	Replacement Cost	% Condition Analysis or Renovation Cost Ratio	Total Rooms	Total Cost	Condition Analysis / Upgrade Renovation Cost	New Construction Cost
Existing Lodging Facilities										
7	14	****		\$ 1,132,366	\$ 1,629,482	69.49%	0			
36	19		\$ 386,676		\$ 2,523,495	15.32%	17	\$ 386,676	\$ 386,676	
37	12		\$ 224,449		\$ 1,168,502	19.21%	11	\$ 224,449	\$ 224,449	
Totals	0	\$ -	\$ 611,125	\$ 1,132,366	\$ 5,321,479		28	\$ 611,125	\$ 611,125	
New Proposed Lodging Facility										
							46	\$ 5,579,737		\$ 5,579,737
Total										
							74	\$ 6,190,862	\$ 611,125	\$ 5,579,737

* The Condition Analysis Cost is for making the building well based on Army Lodging Standards without changing how the building functions.

** The Upgrade Renovation Cost includes Condition Assessment items and Upgrade Renovation Cost to meet Army Lodging Standards.

*** The Renovation Cost is for making the building well based on Army Lodging Standards including making functional changes.

**** If the Condition Analysis Cost is under 50% of the Replacement Cost, the Renovation Cost is used.

Cost per Room Comparison

The Wellness Recommendation includes review of off-post Lodging costs compared to the proposed renovation and new construction costs on-post. The renovation and new construction costs include operating costs, capital assessment costs, and sustainment capital expenditures. The following table summarizes this comparison per room for FY08.

	Renovation	New Building	Total
Cost per Room at Carlisle Barracks	\$ 59.75	\$ 70.96	\$ 66.72
Off Post Cost per Room	\$ 73.65	\$ 73.65	\$ 73.65
Difference between On-Post and Off-Post Lodging per room	\$ 13.90	\$ 2.69	\$ 6.93
% Savings of On-Post to Off-Post Lodging	18.9%	3.7%	9.4%

The Cost Per Room at Carlisle Barracks is based on:

Renovation / New Construction Cost w/ inflation to FY 08

Average of 3 years of Operating Cost w/ inflation to FY 08

Cap Ex Cost

Capital Assessment Cost to FY 08

Off Post Cost is based on current room rate average with inflation to FY 08

Due to this cost difference and the savings of 9.4%, it is our recommendation that the Army construct a new Lodging facility and retain 2 existing facilities at Carlisle Barracks in lieu of using off-post lodging to support the determined demand requirement. Off-post lodging will continue to be used for demand beyond the on-post room requirement.

Recommendations / Conclusions

The Wellness Recommendation for Carlisle Barracks is to continue the use of buildings 36 and 37 with 28 rooms and to construct a new main Lodging facility to accommodate the public and back-of-the house spaces

and 46 rooms, for a total of 74 rooms, to meet the 71 room requirement. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration. A long term recommendation (FY18) is to construct additions to this new Lodging facility to replace the existing rooms in buildings 36 and 37. Existing Lodging facilities that do not meet condition and functional requirements based on cost shall be removed from the Lodging inventory. A synopsis of recommended building actions follows

- Retain buildings 36 and 37 for the next 15-20 years to include 23 standard rooms and 5 family suites. Both of these building have received major renovations within the last 10 years and are in good condition, Based on the age of these structure and room size and corridor width constraints , we do not recommend any significant renovations to these buildings. Building 36 is currently used as the main Lodging facility, however is missing several of the main Lodging support spaces. The Wellness Recommendation replaces the main Lodging support spaces in building 36 to the new main Lodging facility and continues the use of this building as a secondary facility of the next 15-20 years.
- Remove building 7 from the Lodging inventory due to the condition of existing building systems and the cost to renovate to meet Army functional criteria.
- Construct a new Lodging facility to include 46 rooms. This building will be planned to include public and back-of-the-house Lodging functions for the total Lodging inventory. The Lodging Master plan indicates future additions to accommodate rooms from buildings 36 and 37 when replacement is required.

Cost Summary

The cost for this recommendation will be:

Renovation of buildings 36 and 37	\$ 611,125
New Lodging Facility	\$5,579,737
Total	\$6,190,862

The Cost for the future addition is estimated at \$2,571,098 in FY18, using inflation rates in accordance with the most recent version of the Economic Analysis for MILCON updated 2 December 2002 located at www.hq.usace.army.mil/

Phasing

Recommend the following phasing as funding is identified.

- Minimize investment in infrastructure for building 7.

- Construct new main Lodging facility prior to removing building 7 from the inventory and removing back-of-the-house and public spaces from building 36.
- Renovate building 36 for condition assessment deficiencies and to remove main Lodging back-of-the-house and public spaces.
- Renovate building 37 for condition assessment deficiencies and reconfiguration of public and back-of-the-house spaces.
- Remove building 7 from the Lodging inventory.
- Construct additions/new wings to the new Lodging facility to accommodate rooms from buildings 36 and 37, when replacement of building 36 and 37 is required (FY 18).

Section 2

Lodging

Master Plan



Installation Summary

Carlisle Barracks, home to the United States Army War College (USAWC), is located between the northeast-southeast chains of the Appalachian Mountains in central Pennsylvania. USAWC's mission is to educate and prepare military, civilian, and international leaders for the responsibilities of strategic leadership, development, and employment in a multinational and interagency environment. The International Fellows Program and the Advanced Strategic Arts Program are two of USAWC's most significant educational programs.

The Carlisle Barracks Installation Design Guide incorporates specific installation requirements. Land use, future development, and architectural compatibility are integral components of the Guide. Current Lodging room night requirements, Army guidance on Lodging facility design standards, and force protection construction standards required additional analyses and were incorporated into the recommendations of the Lodging Wellness Plan.

The character of Carlisle Barracks has been preserved and enhanced through the use of stone, brick, and wood. Medium to low sloped tile roofs, light toned natural stone and brick, and small window and exterior openings are present, often shaded by overhangs or balconies. Low building masses exemplify the desired architecture of the installation.

Master Plan Summary

Lodging facilities at Carlisle Barracks were constructed in various phases and are located in the southwest area of the installation. A thorough condition and functional assessment of the existing buildings noted some deficiencies. Additionally, renovation of one of these buildings to the new Lodging standards and building configuration design is not viable within the 50% threshold. The primary Lodging area is not located in close proximity to the majority of the community facilities, however to consolidate Lodging, the southwest area is recommended for planning future Lodging construction.

The proposed Carlisle Barracks Lodging Master Plan reflects 74 Lodging rooms with an initial replacement of Building 7 in a new Lodging facility. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration. This new facility, in conjunction with existing Lodging facilities 36 and 37, will combine required rooms, public areas and service functions into a cohesive Lodging physical plant in support of the installation requirements.

Siting of the new 46 room Lodging facility is recommended on Gibner Road across from the Dunham Health Clinic, and in close proximity to buildings 36 and 37. Although this site has been offered for RCI use, along with most other available sites on the installation, it is recommended for Lodging use based on in proximity to the other Lodging facilities to be kept as part of the Wellness Recommendation. This plan recommends retaining the rooms in building 36 and 37 for the next 15-20 years, based on current condition and configuration, and limiting renovation work in this building specifically to the removal of back-of-the-house and public spaces no longer required after a new main Lodging facility is constructed. The Lodging Master Plan does include a long term addition to the new Lodging facility to replace these Lodging rooms when it is deemed that building is beyond its useful life (FY18).

Existing Lodging Summary



Building 07

Building 7, constructed in 1888, is a historical 2-story wood structure which received major renovations in 1988 and in 2001. The building has 10 existing standard rooms and 4 family suites. Although these facilities were recently renovated, they do not meet Lodging size requirements or provide appropriate support spaces and cannot be reconfigured without significant reconstruction. To renovate Building 7 to the new standards and configuration will exceed 50% of the replacement cost.

It should be noted that this structure is historical and some Army Lodging functional requirements indicated in the report would require clearance from the SHPO or through Army Alternate Procedures; therefore, some of the requirements may need modification, in which case the prices for implementation may vary from the cost models applied.

Our recommendation is to remove building 7 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Carlisle Barracks Wellness Solution and Lodging Master Plan.



Building 36

Building 36, constructed in 1908, is a historic 2-story wood structure which received a major renovation in 1997. This Main Lodging facility has 15 existing standard rooms and 4 family suites. The building is in good condition and meets the majority of the Army functional standards, but has some room size and corridor width constraints based on original configuration and is missing some of the Main Lodging spaces. Based on age of the structure, however, we do not recommend significant renovations to the public spaces and/or back-of-the-house space to meet functional criteria.

The Wellness Recommendation replaces the Main Lodging support spaces in building 36 to the new facility, and continues the use of this building as a secondary facility over the next 15-20 years with normal maintenance.

It should be noted that this structure is historical and some Army Lodging functional requirements indicated in the report would require clearance from the SHPO or through Army Alternate Procedures; therefore, some of the requirements may need modification, in which case the prices for implementation may vary from the cost models applied.

Our recommendation is to retain building 36 in the Carlisle Barracks Lodging inventory. This facility will remain in the Carlisle Barracks Wellness Solution and Lodging Master Plan.



Building 37

Building 37, constructed in 1908, is a historic 2-story wood structure which received a major renovation in 1998. This building has 10 existing standard room and 2 family suites. The building is in good condition and meets the majority of the Army functional standards, but has some room size and corridor width constraints based on original configuration. Based on age of the structure, however, we do not recommend significant renovations to the public spaces and/or back-of-the-house space to meet functional criteria.

It should be noted that this structure is historical and some Army Lodging functional requirements indicated in the report would require clearance from the SHPO or through Army Alternate Procedures; therefore, some of the requirements may need modification, in which case the prices for implementation may vary from the cost models applied.

Our recommendation is to retain building 37 in the Carlisle Barracks Lodging inventory. This facility will remain in the Carlisle Barracks Wellness Solution and Lodging Master Plan.

New Lodging Building

The proposed replacement/new Lodging facility includes 46 rooms; 29 standard guest rooms and 17 extended stay rooms. The number of rooms for the new proposed Lodging facility reflects the proposed layout and does not match the exact demand numbers, because of building configuration. The plan includes a future expansion to replace the 28 rooms in buildings 36 and 37 in 15-20 years when replacement is required. The lobby and back-of-the-house spaces are sized for the 74 total Lodging rooms on the installation.

The proposed new construction will be sited on Gibner Road across from the Dunham Health Clinic and in close proximity to buildings 36 and 37. The lobby will be constructed of glass exterior curtain walls to enhance the approach to the building, while allowing maximum view and circulation. The proposed building construction is steel frame with CMU infill walls, sloped standing seam metal roof, and a brick/stone exterior veneer. The architectural guidance for Carlisle Barracks is very specific and is incorporated into the cost of the new facility.

The mass, scale and texture of the proposed building is critical. Based on the number of required rooms and to limit the height of the proposed Lodging facility, the recommendation of this plan is to construct a 3-story structure that will be in context with other structures within the area. The long-term additions would be added to the ends of each building wing and taper to a 2 story height, providing character and pedestrian scale.

Areas and Occupancy

The following chart indicates all spaces and size for the proposed new construction based on program and the proposed conceptual building plan.

ROOM / SPACE	PROGRAMMED FLOOR AREA			PLAN FLOOR AREA
	No. Req'd	Net Area Per Room	Total Net Area	
Total Area including 9% Add On Factor (does not include Outside Areas)*			34034	36057
Public Areas			11612	12112
Exterior Entrance	N/A	N/A		0
Vestibule	1	1	0	0
Lobby (includes vestibule)	1	500-800	500-800	1092
Front Desk	2 station	100	100	125
Bell Cart Station	3	12	36	59
Breakfast Bar (Seat/Svc) - min.	1	550	550	658
Passenger Elevators	1	64	192	192
Stairs	4	230	2760	2297
Public Corridors	0	0	5900	5966
Public Telephone Area	2	6	12	56
Vending - Full Service	2	70	140	275
Vending - Ice Only	1	30	30	134
Women - Lobby	1	200	200	211
Men - Lobby	1	200	200	211
Multi-Purpose Room - (250 s.f. min.)	1	250	250	304
Study Rooms (1 per 25 ext stay units)	1	250	250	332
Guest Laundries (2 sets w/d per 75 units)	1	192	192	200
Gear Wash Rooms - (170 s.f. min.)	0	170	0	0
Guest Bulk Storage (1 per 4 family suites)	0	25 ea. 40 w/circ.	0	0
Guest Rooms	46		13800	13800
Guest Room - Standard	29	300	8700	8700
Guest Room - Ext. Stay	17	300	5100	5100
Guest Room - Family Suites	0	450	0	0
Back-of-House Areas			5812	7180
Manager's Office	1	180	180	210
Assistant Manager Offices	1	120	120	124
Front Office Manager	1	100	100	100
Admin. Offices	2 staff	200-250	200-250	249
Cash Room	1	75	75	77
Luggage Storage	1	75	75	76
Admin. Conference Room	1	250	250	304
Housekeeping Office	1	120	120	121
Dirty/Clean Linen Storage	0	50	0	0
In-House Laundry - (500 s.f. minimum)	1	500	500	503
Receiving Office	1	75	75	86
Maintenance Area	1	175	175	188
Kitchen Prep Room	1	150	150	210
Break Room	1	210	210	213
Staff Toilet - Men	1	100	100	69
Staff Toilet - Women	1	100	100	69
Access Corridor	0	0	900	942
Receiving -min.	1	150	150	175
Housekeeping Rooms	1 per 15 units	128	512	726
Service Elevator	1	80	240	252
Data/Commo Room	1	100	100	106
Switch Closets	1	16	16	76
Janitor Closet	1	50	50	63
Mechanical Room	0	0	0	603
General Storage Room - (500 s.f. min.)	1	500	500	514
Bulk Storage Room - (500 s.f. min.)	1	500	500	621
Electrical Room	2	140	280	419
Elevator Equipment Room	1	84	84	84
Exterior			400	
Playground (Outdoor)	1	0	0	0
Grounds Maintenance	1	400	400	0
* Add on factor to cover s.f. for partitions and any space not included in numbers above.				

Cost Summary

The New Construction Cost: \$5,579,737

- The cost is for a building of 46 rooms.
- All costs are adjusted by the Area Cost Factor of 93% for Carlisle Barracks, PA.

Cost Analysis

Summary of Project Replacement Cost (based on 36,057 s.f.)

CSI	Percent	Amount
02 Site Work	3.97%	\$149,574.69
Parking Lots		\$36,046.80
Site Earthwork		\$113,527.89
03 Concrete	20.75%	\$781,978.93
Floor Construction		\$549,199.93
Slab on Grade		\$56,488.20
Stair Construction		\$6,835.50
Standard Foundations		\$169,455.30
04 Masonry	5.08%	\$191,615.02
Exterior Walls		\$191,615.02
07 Thermal & Moisture Protection	5.87%	\$221,149.32
Roof Construction		\$82,146.46
Roof Coverings		\$139,002.86
08 Doors & Windows	7.14%	\$269,180.13
Exterior Doors		\$16,582.83
Exterior Windows		\$208,320.00
Interior Doors		\$44,277.30
09 Finishes	14.77%	\$556,834.53
Ceiling Finishes		\$167,104.80
Floor Finishes		\$194,363.21
Partitions		\$113,987.50
Wall Finishes		\$81,379.02
11 Equipment	1.89%	\$71,177.09
Commercial Equipment		\$14,066.25
Other Equipment		\$57,110.84
13 Special Construction	5.41%	\$204,024.18
Communications & Security		\$91,844.77

Sprinklers		\$112,179.41
14 Conveying Systems	5.30%	\$199,764.00
Elevators and Lifts		\$199,764.00
15 Mechanical	15.81%	\$595,996.08
Cooling Generating Systems		\$271,128.48
Domestic Water Dist		\$80,352.00
Plumbing Fixtures		\$244,515.60
16 Electrical	7.89%	\$297,499.56
Electrical Service & Distribution		\$295,458.21
Site Lighting		\$2,041.35
19 FF&E	6.10%	\$230,000.00
Interior FF&E allowance		\$230,000.00
Total Raw Cost	100.00%	\$3,768,793.53

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$20,728.36
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$376,879.35
Total Additional Hard Cost		\$397,607.72

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$208,320.06
SIOH Conus	6.50%	\$284,356.88
Design	10.00%	\$416,640.12
08 MYr Inflation Fct	9.93%	\$504,018.83
Total Soft Cost		\$1,413,335.90
Total Project Cost for Replacement		\$5,579,737.14

Overview

Section 3 Demand Analysis

Carlisle Barracks, Pennsylvania, is home to the United States Army War College (USAWC). USAWC's mission is to educate and prepare military, civilian and international leaders for the responsibilities of strategic leadership, development and employment in a multinational and interagency environment. The International Fellows Program and the Advanced Strategic Arts Program are two of USAWC's most significant educational programs.

The population at Carlisle Barracks increased slowly but steadily over the past five years, from 1,608 in FY98 to 1,720 in FY02. The population expansion occurred in both the military and civilian ranks. The installation expects the population to remain virtually unchanged by FY05 (1,713 personnel) and remain at that level.

In FY02, Carlisle Barracks' lodging demand was comprised of 27% Temporary Duty (TDY) personnel, 16% Permanent Change of Station (PCS) personnel and 57% unofficial travelers. Unofficial demand is not used in the calculation of recommended room inventory.

The majority of TDY personnel were guest lecturers or attended classes at the USAWC; these classes typically lasted 3 to 5 days. The majority of PCS stays averaged 7 days.

The table below describes Carlisle Barracks' official demand population.

Carlisle Barracks Official Market Demand Analysis		
	TDY	PCS
Total Demand:	27%	16%
Market Segmentation:		
Individuals	100%	< 10%
Families	0%	> 90%
Average Length of Stay (Days):		
14 days or less	75% (3 days)	90% (7 days)
More than 14 days	25% (15 days)	10% (25 days)

Source: Carlisle Barracks Lodging Administration, compiled by HVS International

On Post Inventory

Carlisle Barracks' lodging inventory has 45 rooms.

Demand and Utilization

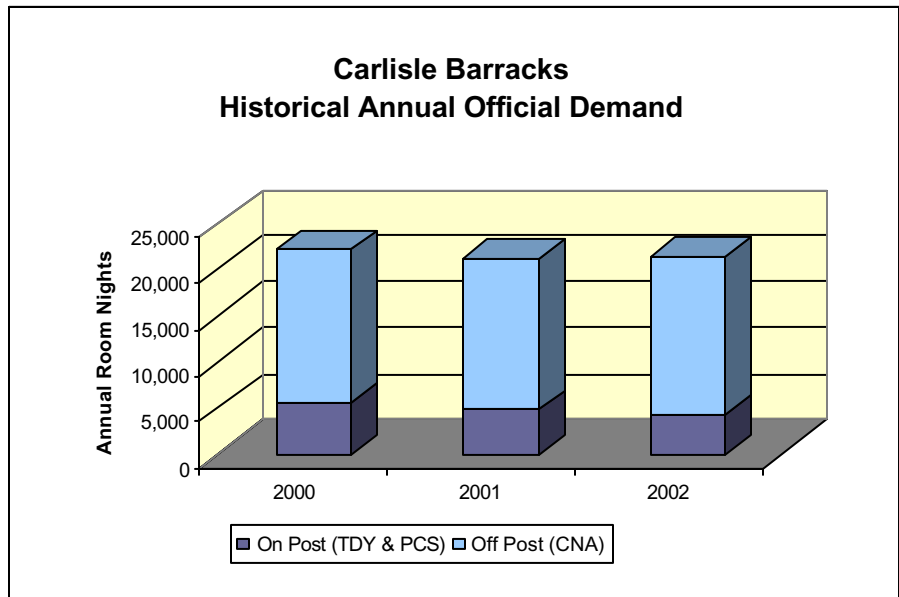
Data Summary

Official demand, including Certificates of Non-Availability (CNAs), totaled 21,323 room nights in FY02, down from 22,205 room nights in FY00. Over this three year period, minimal change occurred in overall demand levels (approximately 2,500 total room nights) from the TDY market segment. In FY02, official demand averaged 58 room nights per day.

PCS demand decreased from 2,392 room nights in FY01 to 1,615 room nights in FY02 due to the fewer number of transfers that occurred during the latter part of FY01 and early FY02. PCS activity began to return to normal levels by April 2002.

These figures reflect CNA demand from the Army War College resident class, inclusive of 45 room nights per day for July 1 through June 15. The data does not reflect the Army War College non-resident class, which generates 350 room nights per day for 12 days in June and for 12 days in July. The non-resident data is not included because the short-duration classes comprise less than 7% of annual demand. CNA activity increased slightly in FY02 as the reserve training activity heightened. CNAs issued in FY01, 16,329 room nights, increased to 16,979 room nights by FY02. The high CNA activity paralleled the timing of classes that occurred at the USAWC.

The following chart summarizes Carlisle Barracks' historical data; it identifies the annual official demand both on and off post.

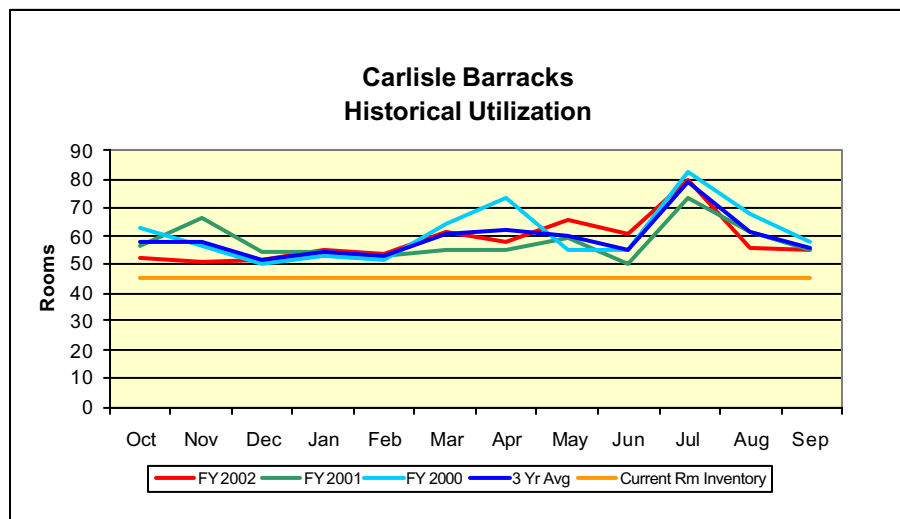


Source: Carlisle Barracks Lodging Administration, compiled by HVS International

Carlisle Barracks' lodging occupancy remained the same during FY00 and FY01 at 60.8%, and declined to 55.7% in FY02. The decline in occupancy in FY02 is attributed to the timing of classes at the USAWC and lower PCS demand in the first part of the fiscal year. As illustrated, actual demand increased in FY02 despite the occupancy decline.

Based on historical data, total official demand remained stable. There was with no change in occupancy for FY00 and FY01, and a slight decrease in FY02. Occupancy trends recently stabilized in the mid 50% range due primarily to class timing.

The following chart summarizes Carlisle Barracks' historical utilization data by month.



Source: Carlisle Barracks Lodging Administration, compiled by HVS International

Monthly variances between years show heightened class attendance during April and July FY00, November FY01, and again in June FY02 when compared to the other two years. Overall, demand was relatively consistent from month to month.

Seasonality

The records indicate distinct seasonality to Carlisle Barracks' lodging demand. Class activity heightened in June and July, while demand was relatively weak December through February.

Factors Influencing Demand

Lodging management indicated no known factors that are likely to cause significant future changes in lodging demand.

Private Market Capability

Carlisle Barracks provides a referral list to eight area hotels inclusive of 1,011 rooms within a 30-minute rush-hour driving time radius of the installation. These hotels range in size from 97 rooms to 261 rooms. The largest hotel among this set is the Clarion; other full-service hotels include a Holiday Inn and a Quality Inn. Limited-service brands include the popular Hampton Inn, as well as a Comfort Inn, Days Inn, Ramada Limited and Sleep Inn.

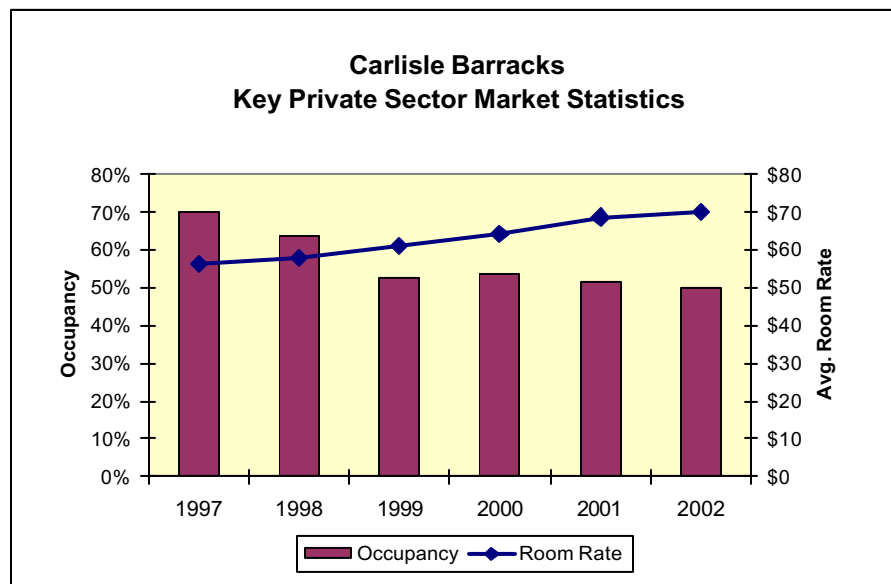
The Carlisle Barracks area accommodations are readily available to installation users. Private market occupancy severely declined in recent years, from its high in 1997 at 70.0% to just under the 50.0% by calendar

2002. At these occupancy levels, local hotels welcome any consistent demand source and offer rooms at very competitive rates. The occupancy decline through 2000 was primarily attributed to an increase in supply; during this timeframe, three hotels opened representing 301 new rooms to a market with historically just over 700 rooms. The decline after 2000 was primarily related to the weakening economy.

Room rates within the private market generally range from \$53 to \$74. The rounded, weighted average rate offered by hotels to government travelers on the referral list was \$67. The rounded, market average rate reported by Smith Travel Research was slightly higher at \$70 for 2002. Rates have grown slowly and consistently in recent years and are expected to continue to grow minimally at best given the extremely low private market demand trends.

The FY02 off-post lodging per diem rate was \$74; however, referred hotels offer lower room rates and, as indicated previously, the actual government rate paid in this market was roughly \$7 lower than the per diem. Because of the readily available rooms at lower room rates, our quantitative analysis uses a room rate of \$67.

The chart below describes key private market statistics.



Source: Smith Travel Research

Demand Requirement Determination

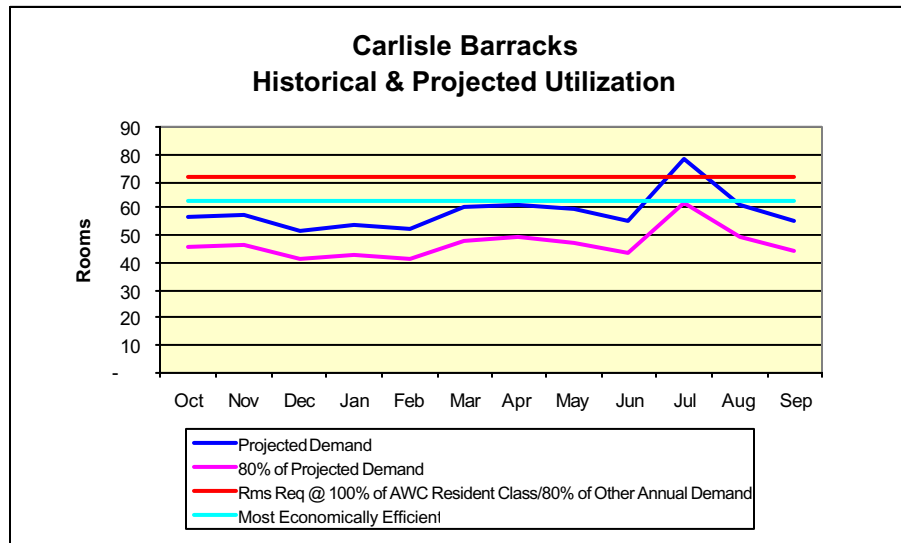
Since only several months' data was provided for FY99 and no data was provided for FY98, we used the FY 00 - FY 02 data as a basis for future demand projections.

The normalization process eliminated monthly demand variances that were 20% greater or 20% less than average demand for FY00 through FY02. Variances greater or less than 20% of the average are atypical and unlikely to recur. For Carlisle Barracks, normalization adjustments were not required.

The Core Lodging Requirement objective is to provide sufficient lodging to meet 80% of the official demand. For this installation, the analysis was adjusted to accommodate 100% of demand from the Army War College and 80% of all other demand. Using this adjusted criterion, the total number of rooms required on an annualized basis is 71, generating occupancy of 81%. As implied by the criterion, at least 80% of the official demand is met each month. On an annual basis, 99% of the official demand is met.

Another method to determine the number of rooms to be provided at the installation applies the "Most Economically Efficient" criterion. This measure compares the cost of having a vacant room to the incremental cost of lodging personnel off post. When the costs of these scenarios are at equilibrium, the most cost efficient number of rooms will be provided from an operating cost perspective. The number of rooms required to achieve this equilibrium for Carlisle Barracks is 63 rooms. With a room inventory of 63 rooms, the expected occupancy is 91% and 98% of the official demand is met.

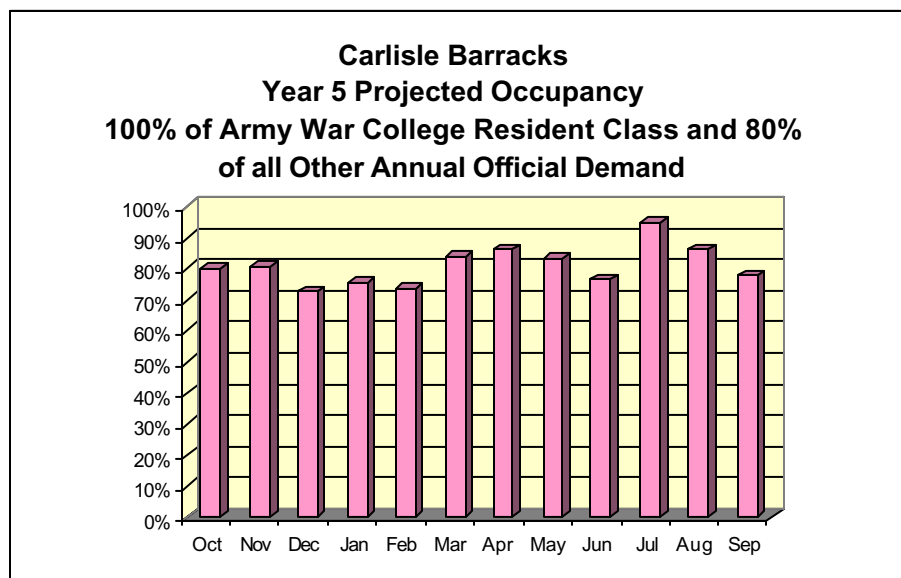
The next chart compares the alternatives to room inventory to projected demand.



Source: Carlisle Barracks Lodging Administration and HVS International

Due to the constant nature of demand from the resident Army War College class, we recommend the number of rooms provided by the “80% of Annual Official Demand” criterion, after adjusting to accommodate 100% of the Army War College resident class, or 71 units. Carlisle Barracks’ projected FY08 Average Daily Rate is \$63.64, based on projected operating costs and exclusive of Wellness recommended capital improvement costs.

The chart below presents the expected occupancy percentage on a monthly basis.



Source: HVS International

Using this adjusted criterion, the average occupancy is 81%, and at least 80% of the official demand is met each month, and 100% of the resident Army War College demand is met as well. On a monthly basis, occupancy varies from a low of 73% in December to 95% in July.

Summary and Recommendation

- Carlisle Barracks' population remained stable at just over 1,700 personnel in FY02, and the installation forecasts population will remain near this level in future years
- The local private sector lodging market has recently experienced declining occupancy levels and now has the capacity to house personnel off-post; reported room rates are reasonable when compared to per diem rates
- Official demand has remained stable over the last three years and is expected to remain at a similar level in the near future
- CNAs are significant at this installation and the Army War College represents thousands of room nights that are housed off post; in FY02, CNAs totaled over 16,000 room nights
- Providing a room inventory equal to 71 units will generate an annual occupancy of 81%.

Room Count and Mix Recommendation

- 71 rooms
- Proposed room mix:
 - 49 standard guest rooms
 - 17 extended-stay guest rooms offering a kitchenette
 - 5 extended-stay family suites offering a separate bedroom, sitting/living area, and kitchenette

INSERT PROPOSED CAMPUS AREA ANALYSIS DRAWING HERE

INSERT LODGING MASTER PLAN DRAWING HERE

INSERT PROPOSED LODGING FACILITY DRAWINGS (FLRS. 1-3) HERE

Section 4 Facility Assessment and Plans

Each Lodging facility is detailed in this section of the report. The outline of the detail is described below:

- **Summary of Existing Lodging Facility**
- **Significant Assumptions**, identifies criteria used for renovation / replacement cost models.
- **Cost Analysis**, summarizes recommendation based on cost.
- **Attributes**, describes number of rooms and configuration.
- **Condition Analysis and Recommendations** for each of the major systems of the building.
- **Major Functional Criteria Deficit**, describes any major Functional inadequacy based on Army standards.
- **Condition Assessment / Renovation / Replacement Analysis**
 - **Condition Assessment**, summarizes building system deficiencies grouped by CSI with additional hard cost and soft cost.
 - **Renovation**, summarizes building system costs plus functional renovation costs grouped by CSI with additional hard cost and soft cost.
 - **Replacement**, summarizes replacement cost grouped by CSI with additional hard cost and soft cost.



*Building 7
7 Ashburn Dr.
Carlisle Barracks, Pa.*

Building 07

Building 7, constructed in 1888, is a historical 2-story wood structure which received major renovations in 1988 and in 2001. The building has 10 existing standard rooms and 4 family suites. Although these facilities were recently renovated, they do not meet Lodging size requirements or provide appropriate support spaces and cannot be reconfigured without significant reconstruction. To renovate Building 7 to the new standards and configuration will exceed 50% of the replacement cost.

It should be noted that this structure is historical and some Army Lodging functional requirements indicated in the report would require clearance from the SHPO or through Army Alternate Procedures; therefore, some of the requirements may need modification, in which case the prices for implementation may vary from the cost models applied.

Our recommendation is to remove building 7 from the Lodging inventory, allowing the installation to determine an alternate use for this facility. This facility will be removed from the Carlisle Barracks Wellness Solution and Lodging Master Plan.

Significant Assumptions

- The replacement and renovation cost models are based on 19 standard stay rooms, 0 extended stay rooms and 0 family suites.
- The renovation plan uses the existing building foot print with the plan reworked to meet current lodging size requirements.
- The replacement and renovation cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.
- All costs are adjusted by the Area Cost Factor of 93% for Carlisle Barracks, PA.

Cost Analysis

• Renovation Cost	\$1,132,366
• Replacement Cost	\$1,629,482
• Renovation to Replacement Cost Ratio	69.49%

Because the Renovation to Replacement Cost Ratio is greater than 50.00%, renovation of Building 07 is not recommended.



Building 7
Southwest Corner

Attributes

01.Number of Units Constructed	14
02.Number of Units Used	14
03.Main Lodging Facility	No
04.Single Room w/o FullKitchen	10
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	0
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	4
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	10
11.Operating as Extended Stay	0
12.Operating as Family Suite	4
13.Renovated to Standard	19
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	0
16.Delta renovation	5
17.Remove from Inventory	Yes
18.Upgrade Renv Cost Model Req	No
19.Renv Cost Model Req	Yes



Building 7
Typical Bedroom

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: The hard goods consist of a headboard, night stand, dresser, easy chair, fabric covered side chair, desk, and entertainment unit. The soft goods consist of drapes and shear drapes on the windows, TV, mattress and box springs and bed coverings. All are in good condition. The majority of the goods were installed before 1998 and should be replaced by 2008.
- Recommendation: Replace all hard goods and soft goods in the guest rooms.

Foundations

Standard Foundations

- Analysis: The foundation consists of masonry perimeter stem walls with brick piers and timber beams supporting the interior structure. The system, original to construction, is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The first floor structure, original to construction, is a double layer wood planking resting on masonry piers and wood joists. The system is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The floor construction for the first and second floors is finished wood over a double layer of wood planking, original to construction. The floor system is in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof construction is timber framing with sloped rafters, original to construction. The roof is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are wood ship lap siding over wood framing. The walls are in good condition, but will require painting by 2008.
- Recommendation: Paint exterior wall and porch surfaces.

Exterior Windows

- Analysis: The windows are a double hung, double glazed, low E glass in wood frames, installed in 2001. The windows are in good condition.
- Recommendation: No corrective action required.



***Building 7
Corridor***

Exterior Doors

- Analysis: The exterior doors are a solid core wood doors with keyed locks, installed in 1988. The doors are in good condition
- Recommendation: Install electronic locksets in the existing doors.

Roofing

Roof Coverings

- Analysis: The roof covering is a standing seam metal roof of unknown age. The roof was not replaced during major renovations in the previous fifteen years. There is evidence of leaks in the roof system.
- Recommendation: Replace the existing roof.

Interior Construction

Partitions

- Analysis: The interior partitions are drywall over wood stud framing. The wood framing is original to construction, and in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: The interior doors are solid core wood fire doors, installed in 1988. The doors are in good condition.
- Recommendation: No corrective action required.

Stairs

Stair Construction

- Analysis: The stairs are wood framed with wood treads and risers and wood balusters original to construction. The stairs are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Wall finishes are a combination of painted drywall and wall paper installed within the last ten years. The finishes are in good condition.
- Recommendation: Install vinyl wall covering on interior wall surfaces.

Floor Finishes

- Analysis: All common areas and guest rooms have carpet and carpet base. The guest bathrooms have a vinyl floor covering. The floor finishes were installed within the last ten years and are in good condition.
- Recommendation: Replace carpet throughout the building and install a ceramic tile in the guest bathroom floors.

Ceiling Finishes

- Analysis: Ceiling finishes are painted drywall, installed within the last ten years. The finishes are in fair condition.
- Recommendation: Repaint the interior ceilings.

Plumbing

Plumbing Fixtures

- Analysis: Each guest bathroom has a sink and vanity, floor mounted water closet and a shower tub combination. The fixtures were installed within the last ten years, and are in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: Domestic hot water is supplied by a gas powered boiler with circulation pumps and an 80 gallon storage tank located in the basement. The system, with all supply piping and waste piping was replaced in 2001 and is in good condition.
- Recommendation: No corrective action required.

HVAC

Cooling Generating Systems

- Analysis: Cooling and heating is provided by an in ground heat pump system supplying heated and chilled water to a fan coil unit located in each guest room and in the common areas. The heat pump system was installed in 2003, and is in good condition. The fan coil units were installed in 1988 and are in fair condition.
- Recommendation: Replace the fan coil units.

Fire Protection

Sprinklers

- Analysis: The building is not sprinkled.
- Recommendation: Install a sprinkler system.

Electrical

Electrical Service/Distribution

- Analysis: Electrical service is provided by an underground transformer vault delivering 208Y/120volt 3 phase power to a 400 amp main disconnect located in the basement. The first and second floors have a 225 amp sub-panel delivering power to the guest rooms and common areas. The system was installed in 2001, and is in good condition.
- Recommendation: No corrective action required.

Communications and Security

- Analysis: The fire alarm system was installed in 2001 and consists of strobes and bells located on the exterior of the building and in the stairwell and corridors. This system is in good condition. There are lighted exit signs in the stairwells and are in good condition. The fire panel emits a radio signal directly to the fire department.
- Recommendation: No corrective action required.

Site Preparation

Site Earthwork

- Analysis: The site earthwork is properly graded to promote drainage away from the building.
- Recommendation: No corrective action required.

Site Improvements

Parking Lots

- Analysis: There is no parking adjacent to the building. Limited parking is available behind a neighboring building three hundred feet from the lodging building. Parking is inadequate.
- Recommendation: Install a new parking lot.

Site Electrical Utilities

Site Lighting

- Analysis: Site lighting is provided by building mounted incandescent fixtures and pole mounted incandescent fixtures adjacent to the building. The system was installed in 1988 and is adequate and in good condition.
- Recommendation: No corrective action required.



Building 7
Lobby

Major Functional Criteria

CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

Back of the House Spaces

- **Accessible Staff Toilets**
Does not exist, is required based on Functional Criteria.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Administration Offices**
Exists, is not required based on Functional Criteria.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Break Room**
Does not exist, is required based on Functional Criteria.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Dirty / Clean Linen Storage**
Linen Storage and Housekeeping Rooms are combined, one on each floor. Rooms too small to serve both functions.
Renovation not required; facility will be replaced as part of Wellness Recommendation.
- **Housekeeping Rooms**
Does not exist, is required based on Functional Criteria.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.

- **Janitor Closet**
Exists, is not required based on Functional Criteria.
Renovation not required; facility will be replaced as part of Wellness Recommendation.
- **Service Corridors**
Does not exist, is required based on Functional Criteria.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Utility Rooms
(Mech/Elec/Data/Comm/Switch/Elevator
Equipment Rooms)**
Meets majority of Functional Criteria.
Renovation not required.

Guest Rooms

- **Family Suites**
Family Suites exceed s.f. requirements; spaces range from 572 s.f. to 750 s.f., standard is 450 s.f. All Family Suites have a small refrigerator, a microwave and some have sinks, but none have burner stoves.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Standard Stay Rooms**
Meets majority of Functional Criteria.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.

Public Spaces

- **Accessible Public Toilets**
One room exists, is not required based on Functional Criteria.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Bell Cart Station**
Does not exist, is required based on Functional Criteria.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Front Desk**
Exists, is not required based on Functional Criteria.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Guest Bulk Storage**
Does not exist, is required based on Functional Criteria.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Guest Laundry Area**
Two guest laundry areas exist, and generally meet the majority of the Functional Criteria, although are undersized.
Renovation not required; facility will be replaced as part of the Wellness Recommendation.

- **Lobby**
Exists, is not required based on Functional Criteria. Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Multi Purpose Area**
Exists, is not required based on Functional Criteria. Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Non Standard Space**
A full guest kitchen which occupies 204 s.f. and a sitting area of 217 s.f. exist and are not required. Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Public Corridors**
Some existing corridors are undersized; width is 48", standard is 72". Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Public Telephone Area**
Meets majority of Functional Criteria. Renovation not required.
- **Stairs**
Two of the three stairs are exterior fire escapes, which do not meet standards. Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Vending**
Currently housed in the common guest kitchen. Renovation not required; facility will be replaced as part of the Wellness Recommendation.
- **Vestibule**
Undersized; space is 27 s.f., standard is 100 s.f. Renovation not required; facility will be replaced as part of the Wellness Recommendation.

Site

- **Community Planning**
The existing Lodging facility is located separately from other Lodging facilities and existing community facilities. Building 7, however, is located in close proximity to Root Hall, the war college. Exterior building architecture and material selections blend with the surrounding community and facilities and is in context with regional influences. Existing parking is not adequate.
- **Force Protection**
Existing Lodging facility siting does not consider force protection building separation requirements, unobstructed space requirements, and road and parking constraints.

- **Site Amenities**

The exterior common areas do not meet Lodging standards including grounds and site amenities.

Exterior signage is appropriate and directive.

Landscape materials and selections use local materials and practices. Site lighting meets required lighting levels and installation standards and provides a good level of security.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
02 Site Work	4.18%	\$14,494.29
Inadequate Parking Area		\$14,494.29
07 Thermal & Moisture Protection	11.20%	\$38,884.34
Metal Roofing: Damaged or Failing		\$38,884.34
08 Doors & Windows	2.00%	\$6,933.15
Lockset - Missing or Inadequate		\$6,933.15
09 Finishes	20.42%	\$70,891.30
Carpet: Damaged or Failing		\$16,310.81
Exterior Surfaces: Paint Failing		\$8,549.64
Floor Tile: Damaged or Failing		\$12,214.06
Interior ceilings: Paint Failing		\$4,017.57
Vinyl Wall Covering: Damaged or Failing		\$29,799.22
11 Equipment	1.72%	\$5,959.44
Stove: Missing or inadequate		\$5,959.44
13 Special Construction	11.69%	\$40,569.39
Fire protection commercial kitchen: Miss / inadq		\$3,371.25
Fire Sprinklers: Missing or Inadequate		\$37,198.14
15 Mechanical	28.63%	\$99,363.93
FCU: Beyond expected useful life		\$95,053.81
Kitchen exhaust: Damaged or failing		\$4,310.12
19 FF&E	20.17%	\$70,000.00
Hard and soft goods: Beyond expected useful life		\$70,000.00
Total Raw Cost	100.00%	\$347,096.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,909.03
Force Protection	9.00%	\$34,534.32
General Conditions	10.00%	\$34,709.60
Total Additional Hard Cost		\$71,152.94

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$41,824.89
SIOH Conus	6.50%	\$29,904.80
Design	10.00%	\$41,824.89
08 MYr Inflation Fct	9.93%	\$52,808.09
Total Soft Cost		\$166,362.68
Total Project		\$584,611.62

Renovation

The Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. This cost also includes all building deficiencies listed under the Condition Assessment Cost.

Summary of Project Renovation Cost

CSI	Percent	Amount
02 Site Work	4.32%	\$29,040.24
Site Development		\$14,494.29
Site Earthwork		\$14,545.94
03 Concrete	1.02%	\$6,835.50
Stair Construction		\$6,835.50
07 Thermal & Moisture Protection	7.39%	\$49,702.12
Roof Coverings		\$49,702.12
08 Doors & Windows	2.75%	\$18,480.96
Interior Doors		\$18,480.96
09 Finishes	26.38%	\$177,340.52
Ceiling Finishes		\$32,394.41
Floor Finishes		\$53,876.77
Partitions		\$33,892.05
Wall Finishes		\$57,177.29
10 Specialties	0.20%	\$1,370.31
Fittings		\$1,370.31
13 Special Construction	8.39%	\$56,417.09
Communications & Security		\$25,397.06
Sprinklers		\$31,020.03
15 Mechanical	23.57%	\$158,463.63
Cooling Generating Systems		\$74,972.88
Domestic Water Dist		\$31,806.00
Plumbing Fixtures		\$51,684.75
16 Electrical	11.85%	\$79,658.69
Electrical Service & Distribution		\$79,658.69
19 FF&E	14.13%	\$95,000.00
Interior FF&E allowance		\$95,000.00
Total Raw Cost	100.00%	\$672,309.06

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$3,697.70
Force Protection	9.00%	\$66,891.39
General Conditions	10.00%	\$67,230.91
Total Additional Hard Cost		\$137,820.00

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$81,012.91
SIOH Conus	6.50%	\$57,924.23
Design	10.00%	\$81,012.91
08 MYr Inflation Fct	9.93%	\$102,286.85
Total Soft Cost		\$322,236.89
Total Project Cost for Renovation		\$1,132,365.94

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	3.95%	\$43,516.10
Parking Lots		\$14,842.80
Site Earthwork		\$28,673.30
03 Concrete	15.00%	\$165,088.09
Floor Construction		\$94,696.39
Slab on Grade		\$21,185.40
Stair Construction		\$6,835.50
Standard Foundations		\$42,370.80
04 Masonry	6.33%	\$69,709.22
Exterior Walls		\$69,709.22
07 Thermal & Moisture Protection	6.88%	\$75,730.74
Roof Construction		\$23,164.32
Roof Coverings		\$52,566.42
08 Doors & Windows	10.39%	\$114,333.27
Exterior Doors		\$9,137.25
Exterior Windows		\$85,560.00
Interior Doors		\$19,636.02
09 Finishes	12.93%	\$142,327.36
Ceiling Finishes		\$21,395.23
Floor Finishes		\$54,497.84
Partitions		\$38,055.75
Wall Finishes		\$28,378.54
13 Special Construction	4.64%	\$51,014.44
Communications & Security		\$22,964.97
Sprinklers		\$28,049.47
15 Mechanical	24.18%	\$266,139.03
Cooling Generating Systems		\$67,793.28
Domestic Water Dist		\$31,806.00
Plumbing Fixtures		\$166,539.75
16 Electrical	7.07%	\$77,763.81
Electrical Service & Distribution		\$75,722.46
Site Lighting		\$2,041.35
19 FF&E	8.63%	\$95,000.00
Interior FF&E allowance		\$95,000.00
Total Raw Cost	100.00%	\$1,100,622.06

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$6,053.42
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$110,062.21
Total Additional Hard Cost		\$116,115.63

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$60,836.88
<i>Building 07</i>		

SIOH Conus	6.50%	\$83,042.35
Design	10.00%	\$121,673.77
08 MYr Inflation Fct	9.93%	\$147,191.47
Total Soft Cost		\$412,744.47
Total Project Cost for Replacement		\$1,629,482.15

INSERT BUILDING 7 FLOOR PLANS HERE



*Building 36
36 Flower Rd.
Carlisle Barracks, Pa.*

Building 36

Building 36, constructed in 1908, is a historic 2-story wood structure which received a major renovation in 1997. This Main Lodging facility has 15 existing standard rooms and 4 family suites. The building is in good condition and meets the majority of the Army functional standards, but has some room size and corridor width constraints based on original configuration and is missing some of the Main Lodging spaces. Based on age of the structure, however, we do not recommend significant renovations to the public spaces and/or back-of-the-house space to meet functional criteria.

The Wellness Recommendation replaces the Main Lodging support spaces in building 36 to the new facility, and continues the use of this building as a secondary facility over the next 15-20 years with normal maintenance.

It should be noted that this structure is historical and some Army Lodging functional requirements indicated in the report would require clearance from the SHPO or through Army Alternate Procedures; therefore, some of the requirements may need modification, in which case the prices for implementation may vary from the cost models applied.

Our recommendation is to retain building 36 in the Carlisle Barracks Lodging inventory. This facility will remain in the Carlisle Barracks Wellness Solution and Lodging Master Plan.

Significant Assumptions

- The replacement cost model is based on 14 standard stay rooms, 0 extended stay rooms and 3 family suites.
- The upgrade cost model uses the existing building foot print, with the plan reworked to meet current lodging size requirements.
- This building is in good condition for both the Condition Assessment and Function Criteria. In this building the Condition Assessment costs include the wellness items and the Upgrade Cost includes functional renovations but not Condition Assessment cost.
- The upgrade and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.
- All costs are adjusted by the Area Cost Factor of 93% for Carlisle Barracks, PA.

Cost Analysis

• Condition Assessment & Upgrade Cost	\$368,676
• Replacement Cost	\$2,523,495
• Condition Assessment & Upgrade to Replacement Cost Ratio	14.61%

Because the Sum of the Condition Assessment and Upgrade Costs to Replacement Cost Ratio is less than 50.00%, repair, upgrade, and continued use of Building 36 is recommended.



Building 36
East Elevation

Attributes

01.Number of Units Constructed	19
02.Number of Units Used	19
03.Main Lodging Facility	Yes
04.Single Room w/o FullKitchen	15
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	4
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	15
11.Operating as Extended Stay	0
12.Operating as Family Suite	4
13.Renovated to Standard	14
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	3
16.Delta renovation	-2
17.Remove from Inventory	No
18.Upgrade Renv Cost Model Req	Yes
19.Renv Cost Model Req	No



Building 36
Breakfast Room

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: The hard goods consist of head boards, night stands, dresser in each bedroom, desk w/chair, a couch, davenport, table w/chairs, easy chairs, coffee table, end tables and a TV cabinet with drawers. The soft goods consist of drapes and blinds on the windows, TV and bed. All were installed in 1998, and are in fair condition.
- Recommendation: Replace the hard goods and soft goods in the guest rooms.

Foundations

Standard Foundations

- Analysis: The foundation consists of stone perimeter stem walls with brick piers supporting the interior structure. The system, original to construction, is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The first floor structure is a double layer of wood planking bearing on the masonry foundation. The system, original to construction, is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: The first and second floor construction is finished wood over double wood planks resting on a masonry pier and wood beam structure. The system is original to construction, and is in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: Roof construction is timber framing with sloped rafters, original to construction. The system is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: Exterior walls are structural brick masonry, original to construction. The walls are in good condition, but require painting.
- Recommendation: Repaint the exterior walls.

Exterior Windows

- Analysis: The windows are a double hung, double glazed low E glass in wood frames, installed in 1997. The windows are in good condition.
- Recommendation: No corrective action required.



Building 36
Typical Guestroom

Exterior Doors

- Analysis: The exterior doors are a solid core wood door with keyed locks in wood frames, installed in 1997. The doors are in good condition.
- Recommendation: Install electronic locks.

Roofing

Roof Coverings

- Analysis: The roof covering is a standing seam metal roof installed in 1997. The roof is in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: Interior partitions are a combination of drywall over wood framing and furred out masonry. The wood framing and drywall was rehabilitated in 1997, and is in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: Interior doors are solid core fire rated doors in wood frames with keyed locks, installed in 1997. The doors are in good condition.
- Recommendation: Install electronic locks

Stairs

Stair Construction

- Analysis: The stairs are wood framed with wood risers and treads and wood balusters original to the building and in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Wall finishes are a combination of painted drywall and wall paper, installed in 1997. The finishes are in fair condition.
- Recommendation: Install vinyl wall covering on wall surfaces.

Floor Finishes

- Analysis: Floor finishes are a combination of carpet in guest rooms and common areas and vinyl tile in the bathrooms. The finishes were installed in 1997 and are in fair condition.
- Recommendation: Replace all carpet and install ceramic tile in the bathrooms.

Ceiling Finishes

- Analysis: Ceiling finishes are painted drywall, installed in 1997 and in fair condition.
- Recommendation: Repaint interior ceilings.

Conveying

Elevators and Lifts

- Analysis: The building does not have an elevator. An existing building with only two floors and the current room count does not justify installation of an elevator according to CFSC standards.
- Recommendation: No corrective action required.

Plumbing

Plumbing Fixtures

- Analysis: All guest bathrooms have a sink with vanity, a floor mounted water closet and shower tub combination. The fixtures, installed in 1997, are in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: Domestic hot water is provided by a gas powered boiler with circulating pumps and twin 110 gallon storage tanks. The system and all piping was replaced in 1997 and is in good condition.
- Recommendation: No corrective action required.

HVAC

Cooling Generating Systems

- Analysis: Cooling is provided by a dedicated chiller unit supplying chilled water to fan coil units located in the guest rooms and common areas. Heat is provided by a gas powered boiler located in the basement supplying heated water to the fan coil units in the guest room and common areas. The system was installed in 1997 and is in good condition.
- Recommendation: No corrective action required.

Fire Protection

Sprinklers

- Analysis: The building has a sprinkler system installed in 1997 and is in good condition.
- Recommendation: No corrective action required.

Electrical

Electrical Service/Distribution

- Analysis: Electrical service is supplied by an underground transformer vault providing 208Y/120V 3 phase power to a 800 amp main disconnect located in the basement. 225 amp distribution panels are located on the first and second floors providing power to the building circuits. The system was installed in 1997 and is in good condition.
- Recommendation: No corrective action required.

Communications and Security

- Analysis: The fire alarm system, installed in 1997, consists of strobes and bells located on the exterior of the building and in the stairwell and corridors. This system is in good condition. There are lighted exit signs in the stairwells and are in good condition. The fire panel emits a radio signal directly to the fire department.
- Recommendation: No corrective action required.

Equipment

Commercial Equipment

- Analysis: In house laundry is done on a shared basis using guest service laundry equipment. The laundry equipment is in good condition
- Recommendation: No corrective action required.

Other Equipment

- Analysis: The laundry room has a commercial washer and dryer installed in 2000 and is shared by the guests and lodging staff. The equipment is in good condition. There is no common kitchen and there are no stoves in the family suites.
- Recommendation: Install two-burner stoves in the family suites.

Site Preparation

Site Earthwork

- Analysis: The site earthwork is properly graded to promote drainage away from the building.
- Recommendation: No corrective action required.

Site Improvements

Parking Lots

- Analysis: A small parking area is located adjacent to the building and is barely sufficient for lodging employees. Minimal parking is available for guests.
- Recommendation: Provide adequate parking for lodging guests.

Site Electrical Utilities

Site Lighting

- Analysis: Site lighting is provided by pole-mounted fixtures in parking areas adjacent to the building. Building-mounted lighting fixtures are also provided at entrance doors. Site lighting appears to be in good condition.
- Recommendation: No corrective action required.



Building 36
Handicapped Bathroom

Major Functional Criteria

CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

Back of the House Spaces

- **Accessible Staff Toilets**

Does not exist, one is required based on Functional Criteria.

Renovation not required; existing Public Toilet Rooms will be used for Staff Toilets when building becomes a secondary facility as part of the Wellness Recommendation.

- **Administration Conference Room**
Does not exist, is required based on Functional Criteria.
Renovation not required; function will be included in the new Main Lodging facility as part of the Wellness Recommendation.
- **Administration Offices**
Does not exist, is required based on Functional Criteria.
Renovation not required; function will be included in the new Main Lodging facility as part of the Wellness Recommendation.
- **Break Room**
Does not exist, is required based on Functional Criteria.
Renovation will include function as part of Wellness Recommendation.
- **Bulk Storage Area**
Space is located in the basement, and is oversized.
Function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.
- **Cash Room**
Does not exist, is required based on Functional Criteria.
Renovation not required; function will be included in the new Main Lodging facility as part of the Wellness Recommendation.
- **Front Office Manager**
Does not exist, is required based on Functional Criteria.
Renovation not required; function will be included in the new Main Lodging facility as part of the Wellness Recommendation.
- **General Storage Area**
Undersized at under 100 s.f.; standard is 500 s.f.
Renovation not required; function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.
- **Housekeeping Office**
Does not exist, is required based on Functional Criteria.
Renovation not required; function will be included in the new Main Lodging facility as part of the Wellness Recommendation.
- **Housekeeping Rooms**
Meets majority of Functional Criteria.
Renovation not required.
- **In-House Laundry Area**
Undersized; space is 84 s.f. and serves this building only. Standard is 500 s.f. to serve all Lodging facilities.
Renovation not required; function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.

- **Janitor Closet**
This space is co-located with the Housekeeping Room, which does not meet standards.
Renovation not required; function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.
- **Kitchen Preparation Area**
Undersized; space is 68 s.f., standard is 150 s.f.
Space is also missing equipment.
Renovation not required; function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.
- **Luggage Storage**
Does not exist, is required based on Functional Criteria.
Renovation not required; function will be included in the new Main Lodging facility as part of the Wellness Recommendation.
- **Maintenance Area**
Does not meet adjacency requirements; space is located in the basement.
Function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.
- **Manager's Office**
Meets majority of Functional Criteria.
Function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.
- **Receiving**
Does not exist, is required based on Functional Criteria.
Renovation not required; function will be included in the new Main Lodging facility as part of the Wellness Recommendation.
- **Receiving Office**
Does not exist, is required based on Functional Criteria.
Renovation not required; function will be included in the new Main Lodging facility as part of the Wellness Recommendation.
- **Service Corridors**
Does not exist, is required based on Functional Criteria.
Building layout does not allow for a service corridor.
Renovation not recommended as part of Wellness Recommendation.
- **Service Elevators**
Does not exist; is required based on Functional Criteria.
Building to become a secondary facility for the next 15-20 years as part of the Wellness Recommendation.
Renovation to add elevator not recommended, due to high cost for the short term requirement.

- **Utility Rooms
(Mech/Elec/Data/Comm/Switch/Elevator
Equipment Rooms)**
Located in basement; meets majority of Functional Criteria.
Renovation not required.

Guest Rooms

- **Family Suites**
Family suites have a small refrigerator and microwave, but do not have a burner stove or sink in the kitchenette unit.
Renovation will be included as part of the Wellness Recommendation.
- **Standard Stay Rooms**
Meets majority of Functional Criteria.
Renovation not required.

Public Spaces

- **Accessible Public Toilets**
Undersized; men's room is 30 s.f., women's room is 36 s.f., standard is 100 s.f. each.
Function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.
- **Bell Cart Station**
Meets majority of Functional Criteria.
Renovation not required.
- **Breakfast Bar**
Undersized; space is 290 s.f., standard is 550 s.f.
Function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.
- **Front Desk**
Undersized; space is 25 s.f., standard is 100 s.f.
Function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.
- **Guest Bulk Storage**
Does not exist, is required based on Functional Criteria.
Renovation will include function as part of Wellness Recommendation.
- **Guest Laundry Area**
Meets majority of Functional Criteria.
Renovation not required.
- **Lobby**
Undersized; space is 252 s.f., standard is 500 - 800 s.f.
Function will be relocated to the new Main Lodging facility as part of the Wellness Recommendation.
- **Multi Purpose Area**
Does not exist, is required based on Functional Criteria.
Renovation not required; function will be included in new Main Lodging facility as part of the Wellness Recommendation.

- **Public Corridors**
Corridor widths range from 48" to 60"; standard is 72". Building to be used for only the next 15-20 years as part of the Wellness Recommendation. Renovation to change corridors not recommended, due to high cost for the short term requirement.
- **Public Telephone Area**
Meets majority of Functional Criteria.
Renovation not required.
- **Stairs**
Meets majority of Functional Criteria.
Renovation not required.
- **Vending**
Meets majority of Functional Criteria.
Renovation not required.
- **Vestibule**
Meets majority of Functional Criteria.
Renovation not required.

Site

- **Community Planning**
The existing main Lodging facility is located separately from existing Lodging building 7. Building 36 is not in close proximity to a majority of the community facilities. Exterior building architecture and material selections blend with the surrounding community and facilities and is in context with regional influences.
- **Force Protection**
Existing Lodging facility siting does not consider force protection building separation requirements, unobstructed space requirements, and road and parking constraints.
- **Site Amenities**
The exterior common areas do not meet Lodging standards including site amenities. Existing grounds are well maintained. Exterior signage is appropriate and directive. Landscape materials and selections use local materials and practices. Playgrounds and dumpsters were not apparent. Site lighting meets required lighting levels and installation standards and provides a good level of security.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
02 Site Work	9.40%	\$19,670.83
Inadequate Parking Area		\$19,670.83
08 Doors & Windows	3.63%	\$7,593.45
Lockset - Missing or Inadequate		\$7,593.45
09 Finishes	35.07%	\$73,415.38
Carpet: Damaged or Failing		\$20,842.45
Exterior Surfaces: Paint Failing		\$7,189.10
Floor Tile: Damaged or Failing		\$8,394.58
Interior ceilings: Paint Failing		\$5,066.14
Vinyl Wall Covering: Missing or inadequate		\$31,923.11
11 Equipment	2.85%	\$5,959.44
Stove: Missing or inadequate		\$5,959.44
13 Special Construction	1.61%	\$3,371.25
Fire protection commercial kitchen: Miss / inadq		\$3,371.25
15 Mechanical	2.06%	\$4,310.12
Kitchen exhaust: Beyond expected useful life		\$4,310.12
19 FF&E	45.39%	\$95,000.00
Hard and soft goods: Beyond expected useful life		\$95,000.00
Total Raw Cost	100.00%	\$209,320.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$1,151.26
Force Protection	9.00%	\$20,826.29
General Conditions	10.00%	\$20,932.00
Total Additional Hard Cost		\$42,909.55

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$25,222.96
SIOH Conus	6.50%	\$18,034.41
Design	10.00%	\$25,222.96
08 MYr Inflation Fct	9.93%	\$31,846.49
Total Soft Cost		\$100,326.81
Total Project		\$352,556.37

Upgrade Renovation

The Upgrade Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Due to the limited nature of this cost model, the Condition Assessment Costs are not included.

Summary of Project Upgrade Renovation Cost

CSI	Percent	Amount
08 Doors & Windows	8.05%	\$770.04
Interior Doors		\$770.04
09 Finishes	80.29%	\$7,684.12
Floor Finishes		\$3,165.72
Partitions		\$4,145.44
Wall Finishes		\$372.96
12 Furnishings	11.66%	\$1,116.00
Fixed Furnishings		\$1,116.00
Total Raw Cost	100.00%	\$9,570.16

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$52.64
Force Protection	9.00%	\$952.18
General Conditions	10.00%	\$957.02
Total Additional Hard Cost		\$1,961.84

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$1,153.20
SIOH Conus	6.50%	\$824.54
Design	10.00%	\$1,153.20
08 MYr Inflation Fct	9.93%	\$1,456.03
Total Soft Cost		\$4,586.97
Total Project Cost for Upgrade Renovation		\$16,118.97

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	3.37%	\$57,460.40
Parking Lots		\$13,429.20
Site Earthwork		\$44,031.20
03 Concrete	14.66%	\$249,865.84
Floor Construction		\$145,343.14
Slab on Grade		\$32,563.95
Stair Construction		\$6,835.50
Standard Foundations		\$65,123.25
04 Masonry	5.50%	\$93,763.81
Exterior Walls		\$93,763.81
07 Thermal & Moisture Protection	6.85%	\$116,703.19
Roof Construction		\$36,275.90
Roof Coverings		\$80,427.28
08 Doors & Windows	7.80%	\$132,870.03
Exterior Doors		\$13,179.03
Exterior Windows		\$100,440.00
Interior Doors		\$19,251.00
09 Finishes	20.09%	\$342,484.11
Ceiling Finishes		\$127,636.23
Floor Finishes		\$113,643.70
Partitions		\$60,940.16
Wall Finishes		\$40,264.02
11 Equipment	1.50%	\$25,607.09
Commercial Equipment		\$14,066.25
Other Equipment		\$11,540.84
13 Special Construction	4.60%	\$78,408.39
Communications & Security		\$35,296.80
Sprinklers		\$43,111.59
14 Conveying Systems	5.86%	\$99,882.00
Elevators and Lifts		\$99,882.00
15 Mechanical	17.84%	\$304,142.55
Cooling Generating Systems		\$104,197.20
Domestic Water Dist		\$34,317.00
Plumbing Fixtures		\$165,628.35
16 Electrical	6.94%	\$118,289.03
Electrical Service & Distribution		\$116,247.68
Site Lighting		\$2,041.35
19 FF&E	4.99%	\$85,000.00
Interior FF&E allowance		\$85,000.00
Total Raw Cost	100.00%	\$1,704,476.43

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$9,374.62
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$170,447.64

Total Additional Hard Cost	\$179,822.26
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Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$94,214.93
SIOH Conus	6.50%	\$128,603.39
Design	10.00%	\$188,429.87
08 MYr Inflation Fct	9.93%	\$227,947.81
Total Soft Cost		\$639,196.00
Total Project Cost for Replacement		\$2,523,494.69

**INSERT BUILDING 36 FLOOR PLANS HERE
(EXISTING AND RENOVATION PLANS)**



*Building 37
37 Garrison Lane
Carlisle Barracks, Pa.*

Building 37

Building 37, constructed in 1908, is a historic 2-story wood structure which received a major renovation in 1998. This building has 10 existing standard room and 2 family suites. The building is in good condition and meets the majority of the Army functional standards, but has some room size and corridor width constraints based on original configuration. Based on age of the structure, however, we do not recommend significant renovations to the public spaces and/or back-of-the-house space to meet functional criteria.

It should be noted that this structure is historical and some Army Lodging functional requirements indicated in the report would require clearance from the SHPO or through Army Alternate Procedures; therefore, some of the requirements may need modification, in which case the prices for implementation may vary from the cost models applied.

Our recommendation is to retain building 37 in the Carlisle Barracks Lodging inventory. This facility will remain in the Carlisle Barracks Wellness Solution and Lodging Master Plan.

Significant Assumptions

- The replacement cost model is based on 9 standard stay rooms, 0 extended stay rooms and 2 family suites.
- The upgrade cost model uses the existing building foot print, with the plan reworked to meet current lodging size requirements.
- This building is in good condition for both the Condition Assessment and Function Criteria. In this building the Condition Assessment costs include the wellness items and the Upgrade Cost includes functional renovations but not Condition Assessment cost.
- The upgrade and replacement cost models include any public or back-of-the-house spaces as outlined in the Areas and Occupancies Schedule Template included in the Appendix.
- All costs are adjusted by the Area Cost Factor of 93% for Carlisle Barracks, PA.

Cost Analysis

• Condition Assessment & Upgrade Cost	\$224,449
• Replacement Cost	\$1,168,502
• Condition Assessment & Upgrade to Replacement Cost Ratio	19.21%

Because the Sum of the Condition Assessment and Upgrade Costs to Replacement Cost Ratio is less than 50.00%, repair, upgrade, and continued use of Building 37 is recommended.



Building 37
Rear of Building

Attributes

01.Number of Units Constructed	12
02.Number of Units Used	12
03.Main Lodging Facility	No
04.Single Room w/o FullKitchen	10
05.Single Room w/ Full Kitchen	0
06.Multi Room wo/ Full Kitchen	2
07.Multi Room w/ Full Kitchen	0
08.DVQ wo/ Full Kitchen	0
09.DVQ w/ Full Kitchen	0
10.Operating as Standard Room	10
11.Operating as Extended Stay	0
12.Operating as Family Suite	2
13.Renovated to Standard	9
14.Renovated to Extended Stay	0
15.Renovated to Family Suite	2
16.Delta renovation	-1
17.Remove from Inventory	No
18.Upgrade Renv Cost Model Req	Yes
19.Renv Cost Model Req	No



Building 37
Typical Guestroom

Condition Analysis/Recommendation

FF&E

FF&E Allowance

- Analysis: The hard goods consist of head boards, night stands, dresser in each bedroom, desk w/chair, a couch, davenport, table w/chairs, easy chairs, coffee table, end tables and a TV cabinet with drawers. The soft goods consist of drapes and blinds on the windows, TV and bed. The furnishings were installed in 1998 and are in fair condition.
- Recommendation: Replace the hard goods and soft goods in the guest rooms.

Foundations

Standard Foundations

- Analysis: The foundation consists of cast stone perimeter stem walls with masonry pier and timber beam construction supporting the interior structure. The system, original to construction, is in good condition.
- Recommendation: No corrective action required.

Slab on Grade

- Analysis: The first floor structure is double planked wood bearing on a pier and beam structure, original to construction. The system is in good condition.
- Recommendation: No corrective action required.

Superstructure

Floor Construction

- Analysis: Floor construction is finished wood planking over a double layer wood sub floor. The system, original to construction, is in good condition.
- Recommendation: No corrective action required.

Roof Construction

- Analysis: The roof construction is timber framing with sloped wooden rafters. The system, original to construction is in good condition.
- Recommendation: No corrective action required.

Exterior Enclosure

Exterior Walls

- Analysis: The exterior walls are a combination of cast masonry block on the lower level with wood framing covered with wood shingles on the second floor level. The system is original to construction and is in good condition. The wood shingles require painting.
- Recommendation: Repaint exterior wood surfaces.



Building 37
Common Kitchen

Exterior Windows

- Analysis: Exterior windows are a double hung, double glazed low E unit in wood frames. The windows were installed in 1998 and are in good condition.
- Recommendation: No corrective action required.

Exterior Doors

- Analysis: Exterior doors are solid core wood in wood frames with keyed locks, installed in 1998 and in good condition.
- Recommendation: Install electronic locks.

Roofing

Roof Coverings

- Analysis: The roof covering is a combination of standing seam metal and asphalt shingles, replaced in 1998. The roof covering is in good condition.
- Recommendation: No corrective action required.

Interior Construction

Partitions

- Analysis: Interior partitions are drywall covered wood framing, original to construction. The drywall was installed in 1998 and is in good condition.
- Recommendation: No corrective action required.

Interior Doors

- Analysis: Interior doors are solid core fire rated wood doors in wood frames with keyed locks. The doors were installed in 1998 and are in good condition.
- Recommendation: Install electronic locks.

Stairs

Stair Construction

- Analysis: Stairs are wood framed with wood treads, risers and balusters, original to construction. The stairs are in good condition.
- Recommendation: No corrective action required.

Interior Finishes

Wall Finishes

- Analysis: Wall finishes are painted drywall, installed in 1998. The finishes are in fair condition.
- Recommendation: Install vinyl wall covering on all wall surfaces.

Floor Finishes

- Analysis: Floor finishes consist of carpet in the guest rooms and common areas and vinyl sheet tile in the guest bathrooms and in the common kitchen. The finishes were install in 1998 and are in fair condition.
- Recommendation: Replace carpet and install ceramic tile in the bathrooms and common kitchen area.

Ceiling Finishes

- Analysis: The ceiling finish is painted drywall, installed in 1998 and in fair condition.
- Recommendation: Repaint interior ceilings.

Plumbing**Plumbing Fixtures**

- Analysis: Guest bathrooms have a sink with vanity, floor mounted water closet, and combination shower tub. The fixtures were installed in 1998 and are in good condition.
- Recommendation: No corrective action required.

Domestic Water Distribution

- Analysis: Domestic hot water is provided by a gas powered boiler with circulation pump and two 60 gallon storage tanks. The system and all distribution and waste piping was installed in 1998 and is in good condition.
- Recommendation: No corrective action required.

HVAC**Cooling Generating Systems**

- Analysis: Cooling is provided by a dedicated chiller unit supplying chilled water to fan coil units in each guest room and common areas. Heating is provided by a gas fired boiler supplying heated water to the fan coil units. The system and all associated piping was installed in 1998 and is in good condition.
- Recommendation: No corrective action required.

Fire Protection**Sprinklers**

- Analysis: The building has a forced water sprinkler system installed in 1998 and in good condition.
- Recommendation: No corrective action required.

Electrical**Electrical Service/Distribution**

- Analysis: Electrical service is supplied by an under ground transformer vault providing 208Y/120V 3 phase power to a 400 amp main disconnect panel located in the basement. A 225 amp distribution panel is located on each of the two floors of the building. The system, including all circuits and wiring, was replaced in 1998, and is in good condition.
- Recommendation: No corrective action required.

Communications and Security

- Analysis: The fire alarm system consists of strobes and bells located on the exterior of the building and in the stairwell and corridors. There are lighted exit signs in the stairwells and emergency lighting in the corridors. The guest rooms have hard wired smoke detectors. The fire panel emits a radio signal directly to the fire department. The system was installed in 1998, and is in good condition.
- Recommendation: No corrective action required.

Equipment

Other Equipment

- Analysis: There is a washer dryer set in the laundry room that is shared by the guests and lodging staff. The common kitchen has a refrigerator, 4 burner stove, microwave oven and sink. All equipment was installed in 1998 and is in good condition. The family suites do not have a two burner stove.
- Recommendation: Install a two burner stove in each family suite.

Site Preparation

Site Earthwork

- Analysis: The site earthwork is properly graded to promote drainage away from the building.
- Recommendation: No corrective action required.

Site Improvements

Parking Lots

- Analysis: Limited parking is available for lodging employees and guests.
- Recommendation: Provide adequate parking.

Site Electrical Utilities

Site Lighting

- Analysis: Site lighting is provided by pole-mounted fixtures in parking areas adjacent to the building. Building-mounted lighting fixtures are also provided at entrance doors. Site lighting appears to be in good condition.
- Recommendation: No corrective action required.



Building 37
Common Living Area

Major Functional Criteria

CFSC Lodging Standards

The following are existing conditions of the Functional Criteria of the building. Included is a statement of the condition and an appropriate recommendation for each area that does not meet CFSC Lodging Standards.

Back of the House Spaces

- **Accessible Staff Toilets**
Does not exist, is required based on Functional Criteria.
Renovation will include function as part of Wellness Recommendation.
- **Break Room**
Does not exist, is required based on Functional Criteria.
Renovation will include function as part of Wellness Recommendation.

- **Dirty / Clean Linen Storage**
Meets majority of Functional Criteria.
Renovation not required.
- **Housekeeping Rooms**
Does not exist, is required based on Functional Criteria.
Renovation will include function as part of Wellness Recommendation.
- **In-House Laundry Area**
Exists, is not required based on Functional Criteria.
Renovation will remove function as part of Wellness Recommendation.
- **Service Corridors**
Does not exist, is required based on Functional Criteria.
Building layout does not allow for a service corridor.
Renovation not recommended as part of Wellness Recommendation.
- **Utility Rooms
(Mech/Elec/Data/Comm/Switch/Elevator
Equipment Rooms)**
Meets majority of Functional Criteria.
Renovation not required.

Guest Rooms

- **Family Suites**
Family suites have a small refrigerator and microwave, but do not have a burner stove or sink in the kitchenette unit.
Renovation will be included as part of the Wellness Recommendation.
- **Standard Stay Rooms**
Meets majority of Functional Criteria.
Renovation not required.

Public Spaces

- **Bell Cart Station**
Meets majority of Functional Criteria.
Renovation not required.
- **Guest Bulk Storage**
Does not exist, is required based on Functional Criteria.
Renovation will include function as part of Wellness Recommendation.
- **Guest Laundry Area**
Space is undersized.
Renovation will add second Guest Laundry, which is currently used as In-House Laundry as part of Wellness Recommendation.
- **Lobby**
Exists, is not required based on Functional Criteria.
Renovation will remove function as part of Wellness Recommendation.

- **Public Corridors**
Corridor widths range from 48" to 60"; standard is 72". Building to be used for only the next 15-20 years as part of the Wellness Recommendation. Renovation to change corridors not recommended, due to high cost for the short term requirement.
- **Public Telephone Area**
Meets majority of Functional Criteria. Renovation not required.
- **Stairs**
One of the two stairs is a fire escape. Building to be used for only the next 15-20 years as part of the Wellness Recommendation. Renovation to change stairs not recommended, due to high cost for the short term requirement.
- **Vending**
Undersized; space is 50 s.f., standard is 100 s.f. Renovation will be included as part of Wellness Recommendation.
- **Vestibule**
Undersized; space is 35 s.f., standard is 100 s.f. Renovation will be included as part of Wellness Recommendation.

Site

- **Community Planning**
The existing Lodging facility is located separately from existing main Lodging building 7 but adjacent to the main Lodging facility. Building 37 is not in close proximity to a majority of the community facilities. Exterior building architecture and material selections blend with the surrounding community and facilities and is in context with regional influences.
- **Force Protection**
Existing Lodging facility siting does not consider force protection building separation requirements, unobstructed space requirements, and road and parking constraints.
- **Site Amenities**
The exterior common areas do not meet Lodging standards including site amenities. Existing grounds are well maintained. Exterior signage is appropriate and directive. Landscape materials and selections use local materials and practices. Playgrounds and dumpsters were not apparent. Site lighting meets required lighting levels and installation standards and provides a good level of security.

Condition Assessment/Renovation/Replacement Analysis

Condition Assessments

The Condition Assessment Cost lists what is required to make the building well as it is currently functioning. The cost includes all deficient items based on our field observation and using the Army Lodging standard Cap Ex replacement schedule.

Summary of Project Cost

CSI	Percent	Amount
02 Site Work	10.10%	\$12,423.67
Inadequate Parking Area		\$12,423.67
08 Doors & Windows	3.22%	\$3,961.80
Lockset - Missing or Inadequate		\$3,961.80
09 Finishes	30.98%	\$38,099.55
Carpet: Damaged or Failing		\$11,046.76
Exterior Surfaces: Paint Failing		\$1,481.04
Floor Tile: Damaged or Failing		\$6,210.55
Interior ceilings: Paint Failing		\$2,859.28
Vinyl Wall Covering: Missing or inadequate		\$16,501.92
11 Equipment	2.42%	\$2,979.72
Stove: Missing or inadequate		\$2,979.72
13 Special Construction	2.74%	\$3,371.25
Fire protection commercial kitchen: Miss / inadq		\$3,371.25
15 Mechanical	1.75%	\$2,155.06
Kitchen exhaust: Damaged or failing		\$2,155.06
19 FF&E	48.78%	\$60,000.00
Hard and soft goods: Beyond expected useful life		\$60,000.00
Total Raw Cost	100.00%	\$122,991.00

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$676.45
Force Protection	9.00%	\$12,236.99
General Conditions	10.00%	\$12,299.10
Total Additional Hard Cost		\$25,212.54

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$14,820.35
SIOH Conus	6.50%	\$10,596.55
Design	10.00%	\$14,820.35
08 MYr Inflation Fct	9.93%	\$18,712.17
Total Soft Cost		\$58,949.43
Total Project		\$207,152.97

Upgrade Renovation

The Upgrade Renovation Cost is based on making changes to the building to meet the Army Lodging Standard Functional Criteria. Due to the limited nature of this cost model, the Condition Assessment Costs are not included.

Summary of Project Upgrade Renovation Cost

CSI	Percent	Amount
02 Site Work	30.57%	\$3,139.68
Site Earthwork		\$3,139.68
08 Doors & Windows	11.25%	\$1,155.06
Interior Doors		\$1,155.06
09 Finishes	47.31%	\$4,858.48
Floor Finishes		\$1,429.88
Partitions		\$1,669.47
Wall Finishes		\$1,759.14
12 Furnishings	10.87%	\$1,116.00
Fixed Furnishings		\$1,116.00
Total Raw Cost	100.00%	\$10,269.22

Additional Hard Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Spirit	0.50%	\$56.48
Force Protection	9.00%	\$1,021.74
General Conditions	10.00%	\$1,026.92
Total Additional Hard Cost		\$2,105.14

Soft Cost (Template: Army Lodging Renovation)

Parameter Name	Percent	Amount
Contingency	10.00%	\$1,237.44
SIOH Conus	6.50%	\$884.77
Design	10.00%	\$1,237.44
08 MYr Inflation Fct	9.93%	\$1,562.39
Total Soft Cost		\$4,922.02
Total Project Cost for Upgrade Renovation		\$17,296.38

Replacement

The Replacement Cost is the cost to rebuild the units as part of a new facility including the appropriate back-of-house and public spaces. This cost is based on number and types of units in the renovation model.

Summary of Project Replacement Cost

CSI	Percent	Amount
02 Site Work	3.68%	\$29,029.25
Parking Lots		\$9,188.40
Site Earthwork		\$19,840.85
03 Concrete	14.79%	\$116,708.32
Floor Construction		\$65,944.27
Slab on Grade		\$14,642.85
Stair Construction		\$6,835.50
Standard Foundations		\$29,285.70
04 Masonry	7.03%	\$55,472.83
Exterior Walls		\$55,472.83
07 Thermal & Moisture Protection	6.64%	\$52,416.42
Roof Construction		\$15,884.01
Roof Coverings		\$36,532.41
08 Doors & Windows	10.03%	\$79,182.99
Exterior Doors		\$9,137.25
Exterior Windows		\$55,800.00
Interior Doors		\$14,245.74
09 Finishes	11.71%	\$92,434.56
Ceiling Finishes		\$13,953.49
Floor Finishes		\$33,046.79
Partitions		\$25,842.23
Wall Finishes		\$19,592.05
11 Equipment	0.82%	\$6,510.00
Other Equipment		\$6,510.00
13 Special Construction	4.47%	\$35,259.98
Communications & Security		\$15,872.85
Sprinklers		\$19,387.13
15 Mechanical	26.83%	\$211,722.87
Cooling Generating Systems		\$46,857.12
Domestic Water Dist		\$20,088.00
Plumbing Fixtures		\$144,777.75
16 Electrical	7.03%	\$55,519.14
Electrical Service & Distribution		\$53,477.79
Site Lighting		\$2,041.35
19 FF&E	6.97%	\$55,000.00
Interior FF&E allowance		\$55,000.00
Total Raw Cost	100.00%	\$789,256.36

Additional Hard Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Spirit	0.50%	\$4,340.91
Force Protection	0.00%	\$0.00
General Cond	10.00%	\$78,925.64
Total Additional Hard Cost		\$83,266.55

Soft Cost (Template: Army Lodging New Construction)

Parameter Name	Percent	Amount
Contingency	5.00%	\$43,626.15
SIOH Conus	6.50%	\$59,549.69
Design	10.00%	\$87,252.29
08 MYr Inflation Fct	9.93%	\$105,551.04
Total Soft Cost		\$295,979.16
Total Project Cost for Replacement		\$1,168,502.07

**INSERT BUILDING 37 FLOOR PLANS HERE
(EXISTING AND RENOVATION PLANS)**

Army Lodging Wellness Recommendation

Appendix

ROOM / SPACE	1-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Facility on Post Only	Note
Public Areas											
Exterior Entrance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Vestibule	100	100	150	150	200	200	200	200	200		In Main Lodging facilities square footage included in Lobby
Lobby (includes vestibule at Main Lodging facilities)	300-500	300-500	500-800	500-800	800-1000	800-1000	1,000-1,200	1,000-1,200	1,200-1,500	X	Includes square footage of vestibule at Main Lodging facilities
Front Desk	2 station / 100 s.f.	2 station / 100 s.f.	2 station / 100 s.f.	3 station / 150 s.f.	3 station / 150 s.f.	3 station / 250 s.f.	3 station / 250 s.f.	4 station / 300 s.f.	4 station / 300 s.f.	X	
Bell Cart Station	2 carts / 24 s.f.	2 carts / 24 s.f.	3 carts / 36 s.f.	3 carts / 36 s.f.	4 carts / 48 s.f.	4 carts / 48 s.f.	6 carts / 72 s.f.	6 carts / 72 s.f.	8 carts / 96 s.f.		Not required at facilities w/out interior corridors if building is retained.
Breakfast Bar (Seat/Svc)	550	550	550	550	550	550	550	750	1,000	X	Needed at secondary facility, if it is a remote location. CFSC requirement min 550
Passenger Elevators			1 @ 64 s.f. 50-99 rooms 2 @ 64 s.f. 100-149 rooms	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. each	2 @ 64 s.f. 400-499 rooms 3 @ 64 s.f. 500-599 rooms	3 @ 64 s.f. each		If building is over two stories high
Stairs	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each	Numer of stairs based on plan @ 230 s.f. each		
Public Corridors	**	**	**	**	**	**	**	**	**		Minimum 6' wide
Public Telephone Area	2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	2 phones / 12 s.f.	3 phones / 18 s.f.	3 phones / 18 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.	4 phones / 24 s.f.		House phone in secondary buildings. Pay phones & house phones at Main facility
Vending - Full Service	1 per building / 70 s.f.	1 per building / 70 s.f.	70	70	70-105	105-140	140-210	210-280	280+		1 for every other floor to support up to 200 units / 70 s.f. each
Vending - Ice Only	1 per building / 30 s.f.	1 per building / 30 s.f.	30	30	30-45	45-60	60-90	90-120	120+		1 for every other floor to support up to 200 units / 30 s.f. each
Women - Lobby	100	100	200	200	260	260	315	315	350	X	
Men - Lobby	100	100	200	200	260	260	315	315	350	X	
Multi-Purpose Rm	250	250	250	250	250	250	250	250	250	X	
Study Rooms	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 per 25 extended stay units of 250 s.f. each at posts with schools facilities
Guest Laundries	192	192	192-384	384-576	576-768	768-1152	1152-1536	1536-2112	2112+		CFSC requirement 2w/d for every 75 guest rooms
Gear Wash Rooms	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each	At entrance / 170 s.f. each		Only at facilities with outdoor training
Guest Bulk Storage	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note	See Note		1 unit for every 4 family suites of 25 ea. 40 w/circ.
Guest Rooms											
Guest Room - Standard	300	300	300	300	300	300	300	300			
Guest Room - Ext. Stay	300	300	300	300	300	300	300	300			
Guest Room - Suites	450	450	450	450	450	450	450	450			

ROOM / SPACE	1-10 Units	11-49 Units	50-149 Units	150-199 Units	200-299 Units	300-399 Units	400-599 Units	600-799 Units	800+	At Main Facility on Post Only	Note
Back-of-House Areas											
Manager's Office	180	180	180	180	180	180	180	180	180	X	
Assist. Mgr. Off.	-	-	0 50-99 units 120 100-149 units	120	120	120	120	120	120	X	
Front Office Mgr.	100	100	100	100	100	100	100	100	100	X	
Admin. Offices	2 space / 200-250 s.f.	2 space / 200-250 s.f.	2 spaces / 200-250 s.f.	2 spaces / 200-250 s.f.	5 spaces / 500-600 s.f.	5 spaces / 500-600 s.f.	7 spaces / 800-900 s.f.	7 spaces / 800-900 s.f.	10 spaces / 1,100-1,200 s.f.	X	
Cash Room	50	50	75	75	100	100	125	125	150	X	
Luggage Storage	-	-	75	75	100	100	100	100	100	X	
Admin. Conf. Rm.	250	250	250	250	350	350	350	350	350	X	
Housekeeping Off.	120	120	120	120	120	120	120	120	120	X	
Dirty/Clean Linen Stor.	50	50	50	50	100	100	200	200	400	See Note	At all facilities w/out in-house laundry
In-House Laundry	500	500	500	500	500	500	750	750	900	X	CFSC requirement min 500 s.f.
Receiving Office	75	75	75	75	75	75	75	75	75	X	
Maintenance Area	100	100	175	175	250	250	400	400	600	X	
Kitchen Prep Room	150	150	150	150	150	150	150	150	150	X	facility, if it is a remote location.
Break Room		140	210	210	280	280	350	350	420		
Staff Toilet - Men			200	100	100	100	150	150	200		
Staff Toilet - Women		100	100	100	150	150	200	200	250		
Access Corridor	**	**	**	**	**	**	**	**	**		
Receiving	150	150	150	150	150	150	150	150	200	X	
Housekeep. Rms.	128	128-512	512-1280	1280-1792	1792-2560	2560-3456	3456-5120	5120-6912	6912+		128 s.f. for each 15 guest rooms
Service Elevator	80	80	80	80	80	80	80	80	80		
Data/Commo Rm.	100	100	100	100	150	150	150	150	150		
Switch Closets	16 *	16 *	16-48 *	48-64 *	64-96 *	96-128 *	128-144 *	144-256 *	256+ *		1 closet of 16 s.f. for approximately 50 guest rooms
Janitor Closet	50	50	50	50	50	50	50	50	50	X	Only at first floor of Main Lodging facility.
Mechanical Room	*	*	*	*	*	*	*	*	*		
General Stor. Rm.	500	500	500	500	500	500	500	500	500	X	
Bulk Storage Rm.	500	500	500	500	500	500	500	500	500	X	
Electrical Room	140 *	140 *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *	1 per floor @ 140 s.f. each *		One electrical room to serve no more than 100 rooms.
Elevator Equip.Rm.	84	84	84	84	84	84	84	84	84		
EXTERIOR											
Playground (Outdoor)										X	Play ground required at facilities with family stays.
Grounds Maintenance	400	400	400	400	400	400	400	400	400	X	

* Mechanical/electrical/equipment Spaces to be determined by contractor based on appropriate code and recommended systems.

** Corridors to be determined based on building layout.